Professionalism and Ethics in the Public Health Curriculum

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SYNOPSIS

As the public's health-care needs increase in complexity, renewed attention is being given to the ethical dimensions of public health decision-making and the development of public health ethics as a bounded area of teaching and research. This article provides an overview of approaches to public health ethics and decision-making, and suggests ways to incorporate the professionalism competencies into the teaching of public health practice. The teaching of ethics language, concepts, and tools for decision analysis helps to prepare students for the inevitable ethical choices they will have to make in their professional practice. The teaching of ethics and professionalism and the experiences of professionals enrich each other and foster the critical link between education and practice.

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Challenges in the delivery of health care, prevention of disease, promotion of health, and development of health policy continue to increase in complexity and scope. New technologies, emerging and reemerging infectious diseases, globalization, and a growing gap between rich and poor prompt professionals to ask, "What is the right thing to do?" in making decisions that will affect the public's health. Professionalism and ethical values have always provided an implicit grounding for public health practice. But only recently have there been attempts to identify, define, and conceptualize public health ethics as a bounded area of interest within the fields of both public health and bioethics.

Several reasons have been suggested to explain this new interest. Emerging infectious diseases, a growing emphasis on population health, and attention to the relationship between socioeconomic status and health have raised new moral questions in the process of securing the public's health. Furthermore, as 9/11 and recent natural disasters brought the essential role of public health to the nation's attention, the ethical dilemmas in public health were again explicitly recognized as different from those of clinical medicine, a major focus of bioethics. ^{2,3}

The Association of Schools of Public Health (ASPH) has identified professionalism—an ability to demonstrate ethical choices, values, and practices in decision-making and to commit to the practice of personal and professional values—as one of the cross-cutting or interdisciplinary competencies necessary for graduate education in public health.⁴ According to ASPH, such interdisciplinary competencies are considered cross-cutting because they are integrated throughout all of the core public health disciplines (i.e., biostatistics, environmental health sciences, epidemiology, health policy and management, and social and behavioral sciences).⁴

The development of competencies for professionalism in public health coincides with the emergence of public health ethics, with its population-based focus, as a specialty area distinct from bioethics, with its individual-based focus. The teaching of ethics from a public health perspective provides the language, content, and context for recognizing value-laden choices and practices in public health. A language and context for ethics and professionalism encourage the discussion of ethically supportable options and behaviors among stakeholders, practitioners, and public health decision makers. Because the best methods for teaching the knowledge, skills, and behaviors included under the professionalism competencies can be elusive, a variety of methods and philosophical viewpoints will emerge as schools and programs move forward to ensure that

curricula include mechanisms for meeting the professionalism competencies as defined by ASPH.

An existing body of clinical ethics concepts and a growing literature on public health ethics have provided a number of ways to think about ethics and professionalism. While we recognize the utility of distinguishing between public health ethics and clinical ethics approaches, we also agree with those who suggest that the traditional separation between medicine and public health is no longer a useful distinction.^{5,6} Increasingly, complex conditions such as childhood obesity and multidrug-resistant infections suggest that the conceptual divide between the public's health and clinical care is fading. Ethical decisions made in the acute-care setting (e.g., decisions to resuscitate extremely low-birth-weight infants) can have a significant impact on public health, just as public health interventions will affect clinical care (e.g., routine testing of newborns for phenylketonuria, or PKU as it is commonly known). However, defining public health ethics as a field different from clinical ethics emphasizes the issues specific to population-based health and identifies a moral grounding for public health practice. In this article, when not referring specifically to either public health or clinical medicine, we use the term "health care" to encompass the totality of formalized health activities relating to the public's health (i.e., health-care delivery, health promotion, disease prevention, and health policy).

This article presents an overview of issues and approaches that can be incorporated into the teaching of the professionalism competencies. We proceed by (1) presenting an overview of three different approaches to moral thinking that inform the content of public health ethics, (2) reviewing frameworks for analyzing public health conflicts from recent literature, and (3) applying a process for ethical decision-making to the public health arena. The article also discusses the challenges to teaching professionalism and ethics competencies, and provides examples of the integration of ethics into the public health curricula.

APPROACHES TO PUBLIC HEALTH ETHICS

Public health ethics, as related to health care, can be viewed as deriving its content primarily from three approaches to moral thinking. These approaches are found in the moral values inherent in public health practice, the concepts and language of bioethics, and the values implicit in a health and human rights perspective. These approaches have contributed to and continue to shape the development of public health ethics.

Approach 1: values inherent in public health practice

The first approach is derived from the ethical values inherent in the professional practice of public health values that are explicitly stated in a public health code of ethics. This code was developed, appropriately so, by leaders and practitioners in public health through the work of the Public Health Leadership Society. The public health code of ethics, the "Principles of the Ethical Practice of Public Health," provides a statement of public health values, obligations, and ethical guidelines for the field itself, for public health policies and programs, and for public health institutions (Figure 1). Support for developing a code of ethics came from the Centers for Disease Control and Prevention (CDC), the American Public Health Association, the Association of State and Territorial Health Officials, and the National Association of County and City Health Officials—all major organizations concerned with public health practice—underscoring the practice aspect of the code.

Traditionally, codes of ethics, such as those of the medical and nursing professions, have explicated both statements of a profession's values and a standard for the measure of individual professional behavior. The public health code of ethics states values of the profession and ideals for ethical public health practice carried out by institutions through policies and programs. The code, still in its infancy, is a seminal attempt to explicate moral values in public health practice, rather than an attempt to impose rigid moral structures for practice. The code will most likely evolve over time, but in its present form, it can be a useful starting point for discussions of the moral basis for public health practice.

Approach 2: concepts and language of bioethics

A second approach to moral thinking that informs public health ethics arises from bioethics and the application of its language, concepts, and theories to public health.3 The professionalism competencies for graduate education in public health, developed by ASPH, reflect some of these concepts and language (Figure 2). For example, virtues—the morally valuable character traits of an individual8—are found in three of the competencies (numbers 5, 10, and 11).

Figure 1. Principles of the Ethical Practice of Public Health, grouped according to principles addressing the field of public health, public health policies and programs, and public health institutions^a

Principles addressing the field of public health

- 1. Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes.
- 2. Public health should achieve community health in a way that respects the rights of individuals in the community.
- 4. Public health should advocate and work for the empowerment of disenfranchised community members, aiming to ensure that the basic resources and conditions necessary for health are accessible to all.
- 5. Public health should seek the information needed to implement effective policies and programs that protect and promote health.

Principles addressing public health policies and programs

- 3. Public health policies, programs, and priorities should be developed and evaluated through processes that ensure an opportunity for input from community members.
- 8. Public health programs and policies should incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community.
- 9. Public health programs and policies should be implemented in a manner that most enhances the physical and social environment.

Principles addressing public health institutions

- 6. Public health institutions should provide communities with the information they have that is needed for decisions on policies or programs and should obtain the community's consent for their implementation.
- 7. Public health institutions should act in a timely manner on the information they have within the resources and the mandate given to them by the public.
- 10. Public health institutions should protect the confidentiality of information that can bring harm to an individual or community if made public. Exceptions must be justified on the basis of the high likelihood of significant harm to the individual or others.
- 11. Public health institutions should ensure the professional competence of their employees.
- 12. Public health institutions and their employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness.

^aPublic Health Leadership Society. Principles of the ethical practice of public health version 2.2. New Orleans: PHLS; 2002. Used with permission.

Figure 2. The Association of Schools of Public Health professionalism competencies (reprinted with permission)

Professionalism

The ability to demonstrate ethical choices, values, and professional practices implicit in public health decisions; to consider the effect of choices on community stewardship, equity, social justice, and accountability; and to commit to personal and institutional development.

Competencies: Upon graduation, it is increasingly important that a student with an MPH be able to . . .

- 1. Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.
- 2. Apply basic principles of ethical analysis (e.g., the Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy.
- 3. Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health.
- 4. Apply the core functions of assessment, policy development, and assurance of the analysis of public health problems and their solutions.
- 5. Promote high standards of personal and organizational integrity, compassion, honesty, and respect for all people.
- 6. Analyze determinants of health and disease using an ecological framework.
- 7. Analyze the potential impacts of legal and regulatory environments on the conduct of ethical public health research and practice.
- 8. Distinguish between population and individual ethical considerations in relation to the benefits, costs, and burdens of public health programs.
- 9. Embrace a definition of public health that captures the unique characteristics of the field (e.g., population-focused, community-oriented, prevention-motivated, and rooted in social justice) and how these contribute to professional practice.
- 10. Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g., researchers, practitioners, agencies, and organizations).
- 11. Value commitment to lifelong learning and professional service including active participation in professional organizations.

MPH = master of public health

In addition, the practice of ethics through critical analysis of burdens and benefits, the application of moral theory, and the interface with law, exemplified in competencies 2, 7, and 8, are concepts and processes often associated with bioethics practice. The other competencies (numbers 1, 3, 4, 6, and 9) are not specifically ethics-based, but refer to the work of public health as an ethical endeavor—the history and core functions of public health, ecological analysis of determinants of health and disease, and the use of evidence-based knowledge.4 In addition to its work on public health competencies, a working group of ASPH developed a model curriculum⁹ for the teaching of ethics and public health, with support from the Health Resources and Services Administration and the Hastings Center, a prominent bioethics think tank.

Approach 3: health and human rights perspective

A third approach to moral thinking for public health ethics is found in a health and human rights perspective. The modern human rights movement and the relationship between health and human rights have been traced to the United Nations' 1948 Universal Declaration of Human Rights, which affirms that all humans have basic, universal rights such as freedom and dignity. Public health and human rights are related through the recognition of the social and eco-

nomic determinants of health and the responsibility of governments for promoting social justice as a foundation for the health of their citizens.¹¹ If governments fail in their duties to provide basic human rights for their citizens or fail to protect them from harm, a human rights perspective asserts that individuals can attempt to claim these rights by appealing to universal, international law. A human rights perspective has been viewed as a more useful framework for public health than a bioethics perspective because human rights emphasizes the societal context of health, whereas bioethics tends to focus on an individual framework for moral decision-making in health care.12 On the other hand, because they both value individual dignity and worth, the perspectives of bioethics and human rights are not necessarily in conflict, and together can strengthen their individual contributions to the public's health. 12,13

While each of these three approaches has its advocates and critics, public health ethics has been enriched and will continue to develop through the contributions of each perspective. In addition to understanding the different approaches to moral thinking that inform public health ethics, a basic familiarity with ways of conceptualizing ethical issues and the use of a process for ethical decision-making can provide tools for enhancing ethics discussions in the classroom.

FRAMEWORKS FOR CONCEPTUALIZING ETHICAL ISSUES IN PUBLIC HEALTH PRACTICE

In teaching public health ethics, providing both the theoretical bases and practical tools for ethical analysis and decision-making is critical. Answers to the question of how to approach the teaching of both theory and practice are suggested by a number of ways to conceptually frame ethical issues in public health, as well as ways to analyze them. Frameworks for consideration of ethical issues and decision-making in public health have been suggested using philosophical, political science, problem-based, and social justice approaches. In addition, ethics guidelines, values statements, professional consensus papers, and policy reports have been formulated to frame general and specific issues, and provide ethical guidance concordant with professional values.

Philosophical framework

Ethics is a branch of philosophy; therefore, philosophical paradigms have been used most often in different approaches to moral reasoning. Roberts and Reich¹⁴ observed that three philosophical paradigms—utilitarianism, liberalism, and communitarianism-underlie and inform most discussions of ethical questions in public health. They noted that these paradigms provide useful tools for public health decision-making. Morally problematic issues can be analyzed and ethically justified by considering the consequences or outcomes of a public health measure (utilitarianism), by appealing to rights of individuals or groups (liberalism), or by considering the characteristics of what constitutes a good society (communitarianism).14

Political science framework

A political science perspective focuses attention on the perceptions of morality, immorality, and degree of personal responsibility that underlie and shape opposing political viewpoints. Political conflicts often surround public health decisions, such as those concerned with drug policies, needle-exchange programs, or family-planning initiatives. Understanding political differences as rooted in different moral viewpoints may lead stakeholders to move away from divisive and often discriminatory policies and instead search for solutions based on shared perceptions of moral good for all. 15,16

Problem-based framework

Another framework for conceptualizing ethical issues in public health might be thought of as a problem-based approach. Weed and McKeown¹⁷ identified three problematic situations in public health in which ethical values, duties, and obligations compete or conflict. These three situations occur when public health professionals must decide what level of scientific evidence justifies intervention with a public health measure; when practitioners must weigh the role and limits of advocacy in public health; and when they must consider individual concerns against the good of the public.17 Weed and McKeown have selected these three larger, indeterminate situations for their discussion, but acknowledge that other situations create moral tensions in public health practice as well.

Social justice framework

The ethical value of justice can also be considered a framework for identifying, analyzing, and dealing with ethical issues in public health. While philosophers have delineated different theories of justice, public health professionals have tended to focus on social justice. Social justice applied to public health is concerned with social determinants of health, disparities in socioeconomic conditions leading to poor health, and fairness in the distribution of the social burdens and benefits linked to the improvement of health.¹⁸ Social justice issues can be analyzed at the local, national, and global levels. In regard to the U.S. health-care system, however, Aday and colleagues argued that conventional perspectives of justice are inadequate for addressing disparities in health care. They compared and contrasted several views of justice and posited a framework for evaluating equity in health care. An equity paradigm, as described by Aday and colleagues, focuses on health disparities and the means of dealing with them. Health services researchers can assess equity in health care by studying health disparities and the reasons for their occurrence and persistence.19

Professional guidance for ethical issues

Guidance for framing and examining specific ethical issues can be found in numerous public health statements of values, such as codes of ethics, mission statements, guidelines, and policy statements developed by professional groups.²⁰ These documents offer guidelines for professional behaviors and/or dealing with difficult ethical situations encountered in practice. For example, CDC has developed guidelines for the fair distribution of drugs and limitations on personal freedoms that might be required during an influenza pandemic.21 For controversial topics, such as the rationing of scarce resources during a public health emergency, the publication of guidelines or value statements can stimulate public discussion of the problem prior to an actual emergency.²² In general, guidelines are not meant to be rigidly interpreted and can be reformulated as circumstances change.²³ In addition to being useful for addressing recurrent ethical dilemmas in practice, guidelines and other value statements are useful tools for teaching students critical analysis of real or hypothetical cases.

PROCESSES FOR ETHICAL ANALYSIS AND DECISION-MAKING IN PUBLIC HEALTH

Schools of public health are academic institutions with an implied mission to train professionals for public health practice. Theory informs practice, but ultimately, public health practitioners must be prepared to make difficult decisions in the field. Students must be able to apply theory to practical problem-solving in the real world of public health practice. The use of a methodological approach to ethical decision-making will vary according to the complexity of the issues, but will help to ensure that an issue is thoroughly examined and that differing moral views are considered in a conflict situation. Such an approach, commonly used in teaching ethics to health professionals, including public health professionals, 9.24,25 follows a process similar to that of the scientific method (Figure 3).

Steps in a process of ethical decision-making

Recognition of an ethical concern or problem is the first step of the decision-making process, followed by gathering data in an attempt to understand diverse aspects of the problem. The data gathered will involve concrete information, such as identification of stakeholders and cost analyses, but may also include less tangible information, such as the differing values of individuals and groups, and considerations of power relationships among stakeholders.

The next decision step is the identification of conflicting value orientations, which can be accomplished through the application of different moral frameworks. For example, a particular public health program

Figure 3. Steps in a process for ethical decision-making^a

- 1. Recognition/identification of issue
- 2. Data gathering
- 3. Framing of the issues
- 4. Evaluation of morally relevant conditions and considerations
- 5. Implementation of decision
- 6. Evaluation of decision-making process

^aAdapted from: Kanoti GA. Ethical and medical-ethical decisions. Crit Care Clin 1986;2:3-12. requiring children to wear bicycle helmets could be opposed by parents who are concerned with their right to make their own choices for their children (a liberal framework). Or the program could be advocated by health insurers focused on the cost of health care for preventable injuries (a utilitarian perspective), or by community leaders advocating a community value of living in a safety-conscious community (a communitarian view).

A next step would be to consider the conditions for the ethical support of a public health decision. For example, in deciding whether to implement a public health measure that could conflict with individual freedoms, which ethical considerations should be given the most weight and why? Kass has suggested a framework using six criteria to evaluate the ethics of public health policies and programs in such a situation:

- 1. The goal of the public health measure must actually have the potential to improve the public's health.
- 2. The public health measure must be effective in achieving its goals.
- 3. The burdens of the public health measure must be recognized.
- 4. Burdens should be minimized or alternate measures considered.
- 5. The public health measure should be fairly implemented.
- 6. The burdens and benefits should be balanced.²⁶

Similar criteria have been framed by Childress and colleagues²⁷ regarding the effectiveness of the public health measure, its proportionality between burdens and benefits, the necessity of a particular measure in terms of alternate strategies, the least infringement on individuals' freedoms or privacy, and the additional obligation to justify the public health measure to the public with openness and transparency.

Not all ethical dilemmas in public health involve direct conflicts between individual liberties and public health priorities. For example, public health practitioners have noted ethical concerns in collaborations with private industry and divided loyalties inherent to working within a political system²⁸—though these concerns may ultimately involve conflict between individual and social interests. But in the analysis of any ethical concern, a systematic decision-making process should consider public health values, stakeholder values, and ethical justifications for action.

The final steps in the ethical decision-making process are to implement the public health measure and to evaluate the decision-making process. While public health measures themselves are often subjected to evaluation, those individuals involved in the ethical decision-making process should also evaluate their decision-making approach. Were all voices given a chance to be heard? Did the voices reflect the diversity of those who would be affected by the decision-making? Were trust issues with the community (if any) addressed explicitly and openly? Was it a respectful process? How might the process be improved in the future? Keeping records of ethical deliberations and their outcomes will encourage transparency in the process, provide a means of comparing and contrasting future dilemmas, and enable the collection of cases for educational purposes.

CHALLENGES TO TEACHING ETHICS AND PROFESSIONALISM IN THE PUBLIC HEALTH CURRICULUM

In developing competencies for ethics and professionalism, ASPH uses ethics as a grounding for the interdisciplinary competency of professionalism.⁴ The use of ethics as a foundation for professionalism parallels that of other health professions in defining professional values-for example, in 1995 the American Board of Internal Medicine (ABIM) focused on professionalism in defining desired behaviors and outcomes, and in integrating the teaching of those behaviors into the Internal Medicine curriculum.²⁹ The ABIM's concept of professionalism includes elements such as altruism, accountability, a sense of duty, and a striving for excellence,²⁹ issues that can be viewed as subsumed under a broader notion of ethics.

Whether personal morality can be taught within an academic discipline is a long-standing controversy in the field of ethics, but students can be taught professional obligations to themselves, their profession, their colleagues, and their clients. All health professionals also have an obligation to understand and act in accordance with the values of their profession, which are often explicitly stated in professional codes of ethics. In addition, because of the complexities of health care today, all professionals should be familiar with the major ethical issues and controversies in their area of health expertise. In schools of public health, "professionalism," with competency in ethical decision-making, can be taught through referencing and reflecting on the public health code of ethics, faculty modeling, case-based discussions within public health courses, and formal courses in ethics.30

The dominance of clinical ethics and a dearth of faculty cross-trained in both public health and ethics

have been noted as barriers to incorporating ethics instruction into the public health curriculum.30 But more basic challenges exist with regard to attitudes about the teaching of ethics and professionalism. While some faculty may believe they are inadequately prepared to teach ethics, others may doubt the need for explicit ethics instruction, believing that inherent individual moral values, experience, and modeling of mentors are sufficient. However, personal views of morality alone are insufficient to resolve ethical conflicts because differing moral viewpoints are often the basis for a conflict. In addition, some individuals may conflate their personal morality with ethics and consider the study of ethics as necessary only for those individuals lacking in moral qualities.31

A lack of familiarity with basic definitions and terms will impede discussion of ethical issues in public health. A brief overview of ethics language and suggestions for facilitators can be found in the introduction to Ethics and Public Health: Model Curriculum.9 An important distinction for public health is the difference between ethics and law. Because the law cannot say in every instance whether something is right or wrong, ethical reasoning and decision-making will have to be used to resolve a dilemma if the law does not address an issue. It is often said that the best laws are ethical ones; however, legal and ethical perspectives may differ in regard to the same issue.

TEACHING THE PROFESSIONALISM COMPETENCIES: THE UNIVERSITY OF TEXAS EXAMPLE

The University of Texas School of Public Health (UTSPH) in Houston, Texas, in its responsibility to train public health professionals, is meeting the professionalism competencies in a number of ways. UTSPH has a faculty member with a bioethics background whose teaching and research interests are devoted solely to ethics, and who is a resource for other faculty in incorporating the teaching of ethics into specific courses. In addition, a number of faculty from different public health core disciplines, who have interests, knowledge, and experience in ethics, make up a cadre of those who formally incorporate ethics and professionalism into courses and serve as resources to other faculty members. In conjunction with the teaching of ethics and professionalism in individual, discipline-based courses, two ethics courses—research ethics and health care ethics—are offered as electives to students.

UTSPH offers a separate research ethics course to address the social, cultural, and ethical aspects of the research process, as well as the many ethical issues and controversies that have occurred and continue to occur as part of the research endeavor. While Institutional Review Boards may engage in ethical decision-making, their primary concern is compliance with federal laws rather than research ethics per se. Training students in the responsible conduct of research may help them learn professional behaviors. However, a casebased research ethics course can also assist students in understanding how to balance research design and implementation with the protection of human subjects, and to deal with the everyday ethical decisions that are made in the conduct of research. As part of the course, several faculty researchers from core public health disciplines discuss ethical situations encountered in their own research, thereby contributing with practical examples and as role models.

A health care ethics course is taught with the philosophy that public health encompasses all aspects of health-care delivery, disease prevention, health promotion, and policy. Several public health faculty members contribute their expertise as lecturers or discussion facilitators. The course is interdisciplinary, with students from UTSPH and the other four professional schools on the University of Texas Health Science Center Houston campus. Ethical issues, whether framed as clinical or public health, are examined for their public health implications. Thus, students are encouraged to examine ethical issues with an integrative view—i.e., while public health decisions may affect individuals, the ethical decisions of individuals may have broader public health consequences as well.

CONCLUSION

Public health professionals confront ethical dilemmas routinely in public health practice. This complex and rapidly changing field demands that educators give renewed attention and emphasis to ethical decision-making. Students, faculty, and practitioners will benefit from curricula in schools of public health that present the theory, language, and analytical tools to explore contemporary ethical dilemmas, both hypothetical and real. As the discourse in public health ethics advances, the critical link between education and application in the field will be manifest in professional publications and case studies, and in professionals better prepared to resolve ethical dilemmas in their professional practice.

REFERENCES

- Callahan D, Jennings B. Ethics and public health: forging a strong relationship. Am J Public Health 2002;92:169-76.
- Beauchamp DE, Steinbock B. Introduction: ethical theory and public health. In: Beauchamp DE, Steinbock B, editors. New ethics for the public's health. New York: Oxford University Press, Inc.; 1999
- 3. Bayer R, Fairchild AL. The genesis of public health ethics. Bioethics 2004;18:473-92.
- Association of Schools of Public Health, ASPH Education Committee. Master's degree in public health core competency development program, version 2.3, October 2004–2006 [cited 2008 Jan 14]. Available from: URL: http://www.asph.org/userfiles/version2.3.pdf
- Reiser SJ. Medicine and public health: pursuing a common destiny. JAMA 1996;276:1429-30.
- 6. Lasker RD, Committee on Medicine and Public Health. Medicine and public health: the power of collaboration. In: Lee PR, Estes CL, editors. The nation's health. 6th ed. Sudbury (MA): Jones and Bartlett Publishers; 2001. p. 262-301.
- Thomas JC, Sage M, Dillenberg J, Guillory VJ. A code of ethics for public health. Am J Public Health 2002;92:1057-9.
- Beauchamp TL, Childress JF. Principles of biomedical ethics. 3rd ed. New York: Oxford University Press, Inc.; 1989. p. 375.
- Jennings B, Kahn J, Mastroianni A, Parker LS, editors. Ethics and public health: model curriculum, 2003 [cited 2008 Jan 17]. Available from: URL: http://www.asph.org/UserFiles/EthicsCurriculum.pdf
- Annas GJ. Human rights and health—the Universal Declaration of Human Rights at 50. N Engl J Med 1998;339:1778-81.
- Mann JM. Health and human rights. If not now, when? Am J Public Health 2006;96:1940-3. (Originally published in Health Hum Rights 1997;2:113-20.)
- Mann JM. Medicine and public health, ethics and human rights. Hastings Cent Rep 1997;27:6-13.
- Annas GJ. American bioethics and human rights: the end of all our exploring. J Law Med Ethics 2004;32:658-63.
- Roberts MJ, Reich MR. Ethical analysis in public health. Lancet 2002;359:1055-9.
- Morone JA. Enemies of the people: the moral dimension to public health. J Health Polit Policy Law 1997;22:993-1020.
- Bloche MG. American medicine and the politics of race. Perspect Biol Med 2005;48 Suppl 1:S54-67.
- Weed DL, McKeown RE. Science, ethics, and professional public health practice. J Epidemiol Community Health 2003;57:4-5.
- Gostin LO, Powers M. What does social justice require for the public's health? Public health ethics and policy imperatives. Health Aff (Millwood) 2006;25:1053-60.
- Aday LA, Begley CE, Lairson DR, Slater CH. Evaluating the healthcare system: effectiveness, efficiency, and equity. 2nd ed. Chicago: Health Administration Press; 1998.
- Coughlin SS. Ethics in epidemiology at the end of the 20th century: ethics, values, and mission statements. Epidemiol Rev 2000; 22:169-75.
- Kinlaw K, Levine R, Ethics Subcommittee of the Advisory Committee to the Director, Centers for Disease Control and Prevention (US). Ethical guidelines in pandemic influenza—recommendations. February 15, 2007 [cited 2008 Jan 17]. Available from: URL: http://www.cdc.gov/od/science/phec/panFlu_Ethic_Guidelines.pdf
- Árras JD. Rationing vaccine during an avian influenza pandemic: why it won't be easy. Yale J Biol Med 2005;78:287-300.
- Levine RJ. Ethical issues in international vaccine research and development. Yale J Biol Med 2005;78:231-7.
- 24. Kanoti GA. Ethical and medical-ethical decisions. Crit Care Clin 1986;2:3-12.
- 25. Miller FG, Fletcher JC, Fins JJ. Clinical pragmatism: a case method of moral problem solving. In: Fletcher JC, Lombardo PA, Marshall MF, Miller FG, editors. Introduction to clinical ethics. 2nd ed. Frederick (MD): University Publishing Group, Inc.; 1997. p. 21-38.

- 26. Kass NE. An ethics framework for public health. Am J Public Health 2001;91:1776-82.
- 27. Childress JF, Faden RR, Gaare RD, Gostin LO, Kahn J, Bonnie RJ, et al. Public health ethics: mapping the terrain. J Law Med Ethics 2002;30:170-8.
- 28. Bernheim RG. Public health ethics: the voices of practitioners. J Law Med Ethics 2003;31 Suppl 4:104-9.
- 29. American Board of Internal Medicine. Project professionalism. Philadelphia: American Board of Internal Medicine; 1995.
- Thomas JC. Teaching ethics in schools of public health. Public Health Rep 2003;118:279-86.
- 31. Lo B. Resolving ethical dilemmas: a guide for clinicians. Baltimore: Williams and Wilkins; 1995.